

CLAIMS

1. A spring retainer for a syringe that comprises a barrel, a plunger, a spring and a retractable needle, said spring retainer adapted to releasably maintain said spring in a compressed state until decompression of said spring is required to facilitate retraction of said retractable needle into said barrel.
5
2. The spring retainer of Claim 1, wherein said spring retainer comprises a housing for releasably maintaining said spring compressed therein.
3. The spring retainer of Claim 2, wherein the housing comprises a first body member and a second body member that co-operate to releasably maintain said spring in a compressed state.
10
4. The spring retainer of Claim 3, wherein the first body member comprises two or more projections capable of slidably engaging respective slots in said plunger to guide rotation of said plunger in use.
5. The spring retainer of Claim 3, wherein said second body member comprises one or more recesses arranged so as to be releasably engageable by respective tabs on said first body member.
15
6. The spring retainer of Claim 5, wherein the second body member is adapted to be engageable by said plunger so that depression of the plunger triggers disengagement of said first body member and said second body member to thereby allow decompression of said spring.
20
7. The spring retainer of Claim 6, arranged so that disengagement of said first and second body members of said housing can facilitate rotation of said second body member relative to said first body member.
8. The spring retainer of Claim 7, wherein said second body member further comprises circumferential ramps arranged so that decompression of said spring forces engagement of said ramps by said tabs to facilitate rotation of said second body member relative to said first body member.
25
9. A syringe comprising a barrel, a plunger, a spring retainer and a spring, to which syringe a retractable needle is mountable so as to be capable of coupling with said plunger for retraction of said needle into said barrel, said spring retainer adapted to releasably maintain said spring in a compressed state until decompression of said
30

spring is required to facilitate retraction of said retractable needle into said barrel.

10. The syringe of Claim 9, wherein said spring retainer comprises a housing for releasably maintaining said spring compressed therein.

5 11. The syringe of Claim 10, wherein the housing comprises a first body member and a second body member that co-operate to releasably maintain said spring in a compressed state.

12. The syringe of Claim 11, wherein the first body member comprises two or more projections capable of slidably engaging respective slots in said plunger to guide rotation of said plunger in use.

10 13. The syringe of Claim 11, wherein said second body member comprises one or more recesses arranged so as to be engageable by respective tabs on said first body member.

14. The syringe of Claim 13, comprising plunger means for engaging respective complementary mating portions on said second body member.

15 15. The syringe of Claim 14, wherein the plunger means comprises two shoulders engageable with respective shoulder ramps on said second body member.

20 16. The syringe of Claim 15, arranged so that upon engagement between said two shoulders and respective shoulder ramps on said second body member, rotation of said shoulders selectively rotates said second body member relative to said first body member thereby disengaging said tabs from said recesses which disengages said first body member and said second body member to allow decompression of said spring.

25 17. The syringe of Claim 16, wherein said second body member further comprises circumferential ramps arranged so that decompression of said spring forces engagement of said ramps by said tabs to facilitate rotation of said second body member relative to said first body member.

18. The syringe of Claim 17, arranged so that rotation of said second body member is capable of assisting rotation of said plunger into a final, inoperable position.

30 19. The syringe of Claim 9, having said retractable needle mounted thereto, whereby in use said spring is maintained in a compressed state by said spring retainer

until at or near completion of depression of said plunger when injecting material from said syringe.

20. The syringe of Claim 19, arranged so that said plunger and said retractable needle are coupled at or near completion of depression of said plunger.

5 21. The syringe of Claim 20, wherein disengagement of said first and second body members of said housing allows decompression of said spring, which facilitates retraction of said plunger when said retractable needle is coupled therewith.

22. The syringe of Claim 21, arranged so that disengagement of said first and second body members of said housing can facilitate rotation of said second body member relative to said first body member.

10 23. The syringe of Claim 22, arranged so that rotation of said second body member is capable of assisting rotation of said plunger, when said retractable needle is coupled therewith, into a final, inoperable position.

24. The syringe of Claim 23, wherein said first body member comprises two or more projections capable of bearing against respective abutments in respective slots in said plunger to maintain said plunger in said final, inoperable position.

15 25. A spring retainer for a syringe substantially as described herein with reference to the accompanying drawings.

26. A syringe comprising a spring retainer substantially as described herein with reference to the accompanying drawings.

20